

8. (Amended) A backup power supply according to Claim 1, wherein

from said residual capacity of said secondary battery and said load current, said backup power supply has a function for calculating and displaying a service interruption holding time at said point of time.

9. (Amended) A backup power supply according to Claim 1, wherein

from said residual capacity of said secondary battery and said load current, said backup power supply calculates said residual capacity of said secondary battery necessary to ensure a predetermined service interruption holding time at said point of time and performs said peak cut operation within a range having said calculated residual capacity.

10. (Amended) A backup power supply according to Claim 1, wherein a voltage at a connection point of said AC-DC converter and said two-way DC-DC converter is higher than a voltage of said secondary battery, and when said two-way DC-DC converter is discharged from a side of said secondary battery, said converter is operated as a booster chopper circuit, and when said secondary battery is charged, said converter is operated as a voltage reduction chopper circuit.

11. (Amended) A backup power supply according to Claim 1, wherein

said backup power supply has n storage means for dividing a preset time period into n parts by a sampling time sufficiently shorter than said period and corresponding to said divisions, means for detecting said load current, and means for calculating a mean value of load currents from said detected load



current and a last value stored in corresponding storage means, overwriting in said corresponding means, and changing said predetermined peak cut current from said calculated new mean value of load currents.

(Applicant's Remarks are set forth hereinbelow, starting on the following page.)